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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/830,721   | 04/30/2001  | Klaus G. Schmitt     | GER5272             | 2146             |
| 7590   | 04/20/2004  |                      | EXAMINER            |                  |
| Edward D Murphy<br>The Black & Decker Corporation<br>701 East Joppa Road TW199<br>Towson, MD 21286 |             |                      | SAETHER, FLEMMING   |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3677                |                  |

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                |
|------------------------------|-----------------|----------------|
| <b>Office Action Summary</b> | Application N . | Applicant(s)   |
|                              | 09/830,721      | SCHMITT ET AL. |
| Examiner                     | Art Unit        |                |
| Flemming Saether             | 3679            |                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 20 January 2004.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 25-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 25-39 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25, 29, 30, 31, 32 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Dash (US 2,491,479). Dash discloses a method of attaching the head of an aluminum stud (29) onto an aluminum plate (17) by arc welding (see column 2, the last paragraph). The stud includes a percent of titanium (column 2, line 19) and, at least some of that titanium inherently would comprise a surface of the stud to form a surface layer. The plate is disclosed as being a “bulkhead” which would be part of some form of motor vehicle. The sufficient thickness is an intended use since it would be dependent upon the environment.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-28, and 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dash as applied to claims 25 and 32 above, and further in view of

Martin (US 2,670,424) and Konnert (US 4,326,894). Dash does not disclose the titanium being applied as a coating to the surface of the stud by an acidic solution. Martin discloses coating the end of a stud to be arc welded with a metal (column 2, line 42-44) and further discloses coating to be titanium (column 4, the paragraph beginning line 38). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the stud of Dash with a titanium coating as disclosed in Martin in order to improve the weld as discussed throughout Martin. Martin discloses the titanium could be sprayed on (column 3, line 26-29) but, does not disclose an acidic solution. Konnert also discloses a method of coating an aluminum part with a chromium-free titanium by applying a titanium fluoride acid solution (see the first paragraph of the Detailed Description). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to coat the aluminum part of modified Dash with a solution as disclosed in Konnert in order to improve the coating process as described in Konnert. The specific concentration, time and temperature of solution would have been recognized depending upon the application or use of the coated part. The acidic solution being ALODINE 2040 would have been obvious to use since it is a known commercially available acidic solution.

### ***Response to Remarks***

Applicant initially argues that the Dash reference cannot anticipate claims 25 and 32 since it does not disclose a layer of titanium material. In response, the examiner concedes that Dash does not disclose a layer as disclosed but, the claims are to be

given their broadest reasonable interpretation. In that regard, Dash continues to read on the claims. Specifically, since entire stud of Dash is made of the titanium containing material there inherently would a layer at the surfaces containing the same material. The claims to not provide any structure to differentiate the layer from the remainder of the stud.

Applicant next argues the rejection under 35 U.S.C. 103 in that the combination would not be motivated since it would be against the intent or objectives of Martin. Specifically, providing a titanium coating onto an aluminum stud would lower the conductivity (titanium being less conductive than aluminum) which is against the teachings of Martin because Martin looks to improve the conductivity in other word provide a higher conductivity. In response, the examiner understands the applicant's position and the applicant makes a good argument. However, as evident above, examiner has maintained the rejection because the examiner is of the opinion the objectives of Martin could be achieved even in coating aluminum with titanium as will be explained. Admittedly, under ideal (i.e. laboratory) conditions the titanium coating would lower the conductivity but, in reality the weld studs are ultimately more complex than simply the conductively of the materials. As evidence, the applicant is directed to last three paragraph of Martin's description where it discussed the "grain of the metal", "protection ... against corrosion by atmospheric or climatic conditions" and "nitrogenous contamination" all apparently influence the weld stud. Therefore, the titanium layer would have been recognized to ultimately provide an improved weld stud even on

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aluminum. Similarly, even Martin proposes coating the steel stud with titanium (column 4, lines 40-44) which under ideal conditions would be counter to Martin's own objectives because the titanium is less conductive than the steel.

***Conclusion***

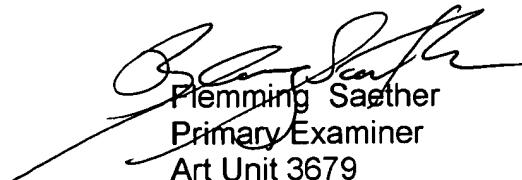
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Flemming Saether  
Primary Examiner  
Art Unit 3679